



## Institute of Infrastructure, Technology, Research And Management

(An Autonomous University Established by Government of Gujarat)

IITRAM Campus, Near Khokhra Circle,  
Maninagar (East), Ahmedabad – 380026, Gujarat.

Contact No.: 079-67775430

E-mail: [purchase@iitram.ac.in](mailto:purchase@iitram.ac.in)

Website: [www.iitram.ac.in](http://www.iitram.ac.in)

Tender No.: 2023/21

Date: 23.10.2023

## **NOTICE INVITING TENDER**

### **Important Information:**

Name of Item(s):	Supply, Installation, Testing & Commissioning of the equipment(s) for Fluid Machinery Laboratory
Date of Issue of Tender	23.10.2023
Tender Fee	Rs.2950/- (Including 18% GST) <b>(Non-Refundable)</b>
Earnest Money Deposit(EMD)	Rs.84,000/- <b>(Refundable)</b>
Last date and time for online bid/offer submission	16.11.2023 till 06.00 pm
Last date and time for physical bid/offer submission	20.11.2023 till 05:00 pm
Date & Time for opening of technical bid/offer	<b>21.11.2023 at 02:30 pm</b>
Date & Time for opening of financial bid/offer	<b>To be informed later through email</b> <i>(Will be informed only technically qualified bidders)</i>
Tender Inviting Authority and Address	The Registrar Institute of Infrastructure, Technology, Research And Management Near Khokhara Circle, Maninagar (East), Ahmedabad – 380026, Gujarat, India. Phone: - 079-67775430 e-Mail: <a href="mailto:purchase@iitram.ac.in">purchase@iitram.ac.in</a>

# Institute of Infrastructure, Technology, Research And Management

## **NOTICE INVITING TENDER**

**Subject: Inviting bids through e-Tender format for Supply, Installation, Testing & Commissioning of the equipment(s) for Fluid Machinery Laboratory**

Institute of Infrastructure, Technology, Research And Management (IITRAM), Ahmedabad invites bids for “Supply, Installation, Testing & Commissioning of the equipment(s) for Fluid Machinery Laboratory” under “Two bid system in e-Tender format”. Interested parties/bidders who wish to participate in this e-Tender may obtain/download the tender documents from IITRAM website i.e. [www.iitram.ac.in](http://www.iitram.ac.in) or from (n)Procure portal i.e., <https://tender.nprocure.com/>. The bidder(s) have to submit the technical bid/offer documents through RPAD, Speed Post or in Person till the last date and time prescribed for submission. Tender sent by other means will not be accepted in any case. Hardcopy of Tender Documents, Tender Fee, EMD and other essential documents should be submitted on or before **20.11.2023 till 05:00 PM** in the office of the IITRAM Room No. G2, Near Khokhara Circle, Maninagar (East), Ahmedabad-380026, Gujarat. Financial bid is to be submitted in electronic form only on (n)Procure portal i.e., <https://tender.nprocure.com/>.

### **1. Eligibility Criteria:**

- 1.1 The bidder should have valid PAN Card. Copy of PAN Card to be submitted.
- 1.2 The bidder should have valid GST Registration. Copy of GST Registration to be submitted.
- 1.3 The bidder has to submit (Photocopies) last three years Income Tax Returns.
- 1.4 The bidder has to submit (Photocopies) the Firm Registration Certificate.
- 1.5 The bidder has to submit the Authorization Letter from the Original Equipment Manufacturer (OEM) on OEM's letter head (in original).

### **2. General Terms and Conditions:**

- 2.1 The quoted price shall include taxes (if any), other levy payable, all freight, packing & forwarding, transportation, loading & unloading, custom duty, excise duty & other duties, other charges (if any) to supply the item(s)/goods at our site.
- 2.2 Rates quoted also shall include training, installation, commissioning, erection and demonstration of item(s)/goods at our site.
- 2.3 The items for which quotation have been submitted must be in accordance with the specifications given in **Annexure-I**.
- 2.4 The rates quoted by the firm shall be fixed for the duration of the contract and shall not be subject to adjustment on any account.
- 2.5 The offer shall be valid up to 90 (ninety) days from the date of opening of Technical bid/offer.
- 2.6 The tender is liable to be rejected if complete information is not given therein or if the particulars and date (if any) asked for in the scheduled tender are not fully filled in. Particular attention must be paid to delivery date and also to the particulars referred to in the condition of the contract.
- 2.7 Financial bids will be opened in online format of technically qualified firms only.
- 2.8 Tender not complying with the above conditions are liable to be rejected at the sole discretion of IITRAM without any further reference/ communication.
- 2.9 This tender is not transferable.
- 2.10 IITRAM reserves its right to choose, accept or reject any or all requests/deviations/offers, in full or part and also reserve the right at any stage to reduce or increase the quantity and split the order.
- 2.11 The bidder has to submit duly signed & stamped photocopy of following documents:

- PAN Card of the firm
  - GST Registration Certificate
  - Last three years Income Tax Return (ITR) of their firm
  - Valid Firm Registration Certificate
  - Authorization Letter from the Original Equipment Manufacturer (OEM) on OEM's letter head (in original)
  - Warranty certificate from Original Equipment Manufacturer (OEM) on OEM's letter head (in original)
  - All relevant Annexure(s) and Appendix(s)
- 2.12 **Performance Security:** The successful bidder shall be required to deposit Performance Security in form of (i) Account Payee Demand Draft (ii) Fixed Deposit Receipt from a Nationalized bank (iii) Bank Guarantee from a Nationalized bank, at the rate of **5%** of the total cost of contract, for the duration of warranty period plus additional two months, in favor of **“INSTITUTE OF INFRASTRUCTURE, TECHNOLOGY, RESEARCH AND MANAGEMENT”** from the date of installation of ordered item(s)/goods. No payment shall be released without performance security.
- 2.13 This Performance Security will be returned (without any interest) within 30 working days after satisfactorily completion of warranty period.
- 2.14 The successful bidder shall have to enter into the Agreement (Contract Form) in the prescribed Performa provided by IITRAM. (on Rs.300 Stamp Paper). The said agreement should be submitted by the respective bidder within 30 (thirty) days after the receipt of the contract/purchase order.
- 2.15 **Inspection:** Pre-dispatch inspection at Bidders site or inspection after the delivery of goods, as the case may be.
- 2.16 **Inspection Charges** @0.5% within Gujarat State and Inspection Charges @1% for outside Gujarat State of the total order value, if required, should be borne by the bidder.
- 2.17 All or any Claim(s), dispute(s) or difference(s) arising out of or in with connection with this agreement shall be subject to the jurisdiction of the Courts at Ahmedabad only.
- 2.18 If any civil work is required to be done for installation and commissioning of the ordered item(s)/goods, then the supplier shall arrange the essential drawing. For this, prior permission of IITRAM's authority is required. The cost of such work is to be borne by the supplier.
- 2.19 Any loss or damage caused to the article in transit/installation/testing is to be made up by the firm free of cost within period of 30 days.
- 2.20 Standard toolkit required for the item(s)/goods to be supplied.
- 2.21 If the firm is blacklisted by Central Government or State Government or any other Government body, then the submitted tender will be rejected. It is essential for firm to submit **Appendix - I** duly filled, signed, sealed & stamped manner in hardcopy, failing which the tender will be summarily rejected.
- 2.22 If there happens to be a holiday on any date indicated in this tender notice, the transaction shall be performed on the next working day.
- 2.23 In case the tender is cancelled, the tender fee will not be refunded to the concerned bidder.
- 2.24 The tender/bid (i.e. technical bid/offer) will be opened on **21.11.2023, 02:30 PM** at IITRAM Ahmedabad Premises. No separate information shall be given to individual bidders.
- The bidders or their authorized representative may remain present during the opening of the Technical bid, if they desire so, at their own expenses. The required technical specifications for the cited item(s)/goods is mentioned in Annexure-I.
  - Only those financial bids will be opened whose technical offers/bids are found suitable by the expert panel/committee appointed for the concerned item(s)/goods. The respective dates for opening of financial bid shall be informed to the technically qualified bidder(s) through email only.
  - In incomparable situation, the committee may negotiate price with the technically and financially qualified bidder before awarding the offer.
  - The tender committee reserves its right to select or reject any or all of the item(s) mentioned above without assigning any reasons.

- 2.25 If the bidder fails to meet any of the above eligibility criteria/ fails to submit the adequate testimonials in support of the above mentioned requirement will be disqualified.
- 2.26 Any effort by a bidder to influence IITRAM's tender evaluation, tender comparison or contract/order award decisions may result in the rejection of the bidder's tender and forfeiture of the bidder's EMD.
- 2.27 After opening of bids, information relating to the examination, clarification, evaluation and comparison of bids and recommendations concerning the award of contract shall not be disclosed to bidders or other persons not officially concerned with such process.
- 2.28 In the event of any dispute or difference(s) between the vendee (IITRAM Ahmedabad) and the bidder(s) arising out of non-supply of material or supplies not found according to the specifications or any other cause whatsoever relating to the supply or purchase order before or after the supply has been executed, shall be referred to the concerned authority of IITRAM Ahmedabad who may decide the matter himself or may appoint arbitrator(s) under the arbitration and conciliation Act 1996. The decision of the arbitrator shall be final and binding on both the parties.
- 2.29 No firm shall withdraw their rates after the Tender is opened. If a firm does so, their tender related deposit/s shall be forfeited and such firm shall be considered ineligible for work/contract in future.

### 3. Submission of bid:

- 3.1 The Tender documents can be downloaded from Institute's website i.e., [www.iitram.ac.in](http://www.iitram.ac.in) or (N)Procure portal i.e., <https://tender.nprocure.com/>. The bidder(s) are required to submit the Tender Acceptance Letter (**Annexure - IV**) endorsed by seal and signature as acceptance of terms and conditions of this tender. Incomplete tenders, amendments and additions to tender after opening or late tenders are liable to be ignored and rejected.
- 3.2 The fully filled in and complete in all respect tender must be submitted with Tender Fee and EMD through Electronic Transfer/ Demand Draft. Bank/DD details are as follows:

**For Electronic Transfer**, Bank Account details are as follows:

<b>Account Name</b>	:	Institute of Infrastructure, Technology, Research And Management
<b>Account No.</b>	:	923010019592531
<b>Bank Name</b>	:	AXIS BANK LTD
<b>IFSC Code</b>	:	UTIB0002645
<b>Branch Name</b>	:	Hatkeshwar Ahm GJ, Ahmedabad - 380026

**Note: Kindly submit Electronic Transfer advise with UTR details along with bid document.**

**OR**

**Demand Draft** in favor of the "INSTITUTE OF INFRASTRUCTURE, TECHNOLOGY, RESEARCH AND MANAGEMENT" payable at Ahmedabad. Please mention Tender number and name of the firm on back side of DD.

- 3.3 Bidders registered with Micro and Small Enterprises (MSEs) and having valid MSE Certificate will be considered for relaxation of EMD. In view of the above, if the bidder will claim for EMD exemptions, the bidder should meet all the criteria for Micro and Small Enterprises. The bidder must submit the supporting document i.e. MSME registration certificate issued by competent government bodies (i.e. issued by Government of Gujarat & Government of India only) to become eligible for the EMD exemptions. The registration certificate (MSE) of the bidder must cover the items tendered to get EMD exemptions.
- 3.4 The EMD is refundable (without any interest) within 30 (thirty) working days after successful award of Purchase Order:
- 3.4.1 EMD of unsuccessful bidder(s) will be returned within 30 (thirty) working days from the date of award of offer/contract.
- 3.4.2 EMD of successful bidder(s) will be returned within 30 (thirty) working days after submission of a Performance Security.
- 3.4.3 The EMD shall be forfeited:

- If bidder(s) withdraws their bid during the period of bid validity specified in this tender notice; and/or
  - In case of a successful Bidder fails, (i) To sign the contract agreement and (ii) To furnish a performance security
- 3.5 The firm has to submit the Tender in two parts viz., (a) Technical bid/offer in *envelop No. (1)* and (b) Tender Fee & EMD in *envelope No. (2)*; both these envelopes should be sealed and put together in *a main covering envelope*, super scribed with – Please Don't Open, Bid for “*Tender for Supply, Installation, Testing & Commissioning of the equipment(s) for Fluid Machinery Laboratory*” with due date, Tender Number and complete address along with contact number and email id.
- 3.6 **The bidder has to specify the make, model, and detailed technical specifications of the quoted/offered item and attach a separate compliance sheet if any deviation compares to the technical specifications mentioned in Annexure-I. Mere copying of the expected technical details into the product details will not be entertained and may even lead to disqualification of the bidder.**
- 3.7 **The bidder must produce the brochure, model and the make of the product being offered.**
- 3.8 It is essential for firm to submit **ANNEXURE(s), APPENDIX(s), Tender documents and other essential documents** as mentioned in this tender notice **with duly filled, signed, sealed & stamped manner in hardcopy**, failing which that bidder's/firm's tender will be summarily rejected.
- 3.9 The “**Financial Bid**” to be filled as per **ANNEXURE – ‘III’** and **should be submitted online only at (n)Procure Portal** as ‘Financial Bid’. Rates quoted ‘ONLINE’ will only be considered.

#### 4. Evaluation of Quotations:

The tender evaluation committee of the IITRAM will evaluate and compare the received quotations/bids to determine the substantially responsive tender i.e. (i) tender is complete (ii) properly signed (iii) confirm the terms/conditions and specifications. Further, the financial evaluation will be done only for the substantially responsive tender based on the following parameter(s):

- Total price quoted (ONLINE) at (n)Procure portal

#### 5. Award of Contract:

- 5.1 IITRAM will award the contract to the firm who has offered lowest price.
- 5.2 Notwithstanding the above, IITRAM reserves the right to accept or reject any quotation and to cancel the bidding process and reject all quotations at any time prior to the award of contract without giving any reason.
- 5.3 The firm whose bid is accepted will be notified of the award of contract by the IITRAM prior to expiration of the bid validity period. The terms of the accepted offer shall be incorporated in the Purchase Order.

#### 6. Delivery Period & Penalty:

- 6.1 **Delivery Period:** The item(s)/goods are to be delivered within a maximum time limit of 90 days from the issue date of Purchase Order. However, in case of imported item(s)/goods can be delivered within a maximum time limit of 120 days from the issue date of Purchase Order.
- 6.2 After the receipt of ordered item(s)/goods in acceptable condition at IITRAM, Ahmedabad bidder has to install item(s)/goods within 30 (thirty) days.
- 6.3 **Penalty:** Penalty of 1% per week of order value will be charged after duration specified above individually. Further, 06 weeks or above delay from above mention days may lead to cancellation of order at the discretion of the university and forfeiting the Performance Security or EMD or Maximum penalty shall be applicable @10%.

#### 7. Warranty:

- 7.1 Minimum One (01) year complete warranty from the date of complete installation, commissioning and erection of all item(s)/goods at our site. During the warranty period i.e. 01 (one) year, the services should have to provide by the supplier onsite.

7.2 Warranty certificate should be provided from Original Equipment Manufacturer (OEM) on OEM's letter head.

**8. Terms of Payment:**

8.1 **Payment:** 100% payment shall be released within 30 (thirty) working days on satisfactory receipt, installation and commissioning of the ordered item(s)/goods at our site, submission of clear Tax-Invoice(s) and supporting documents.

8.2 Advance payment will not be made under any circumstances.

8.3 Recoveries as per the Institute's norms shall be made while making payment (if any) without prior intimation to the supplier.

**9. Address for the submission of physical bid/offer:**

The Registrar  
Institute of Infrastructure, Technology, Research And Management  
Room No. G2,  
Near Khokhara Circle, Maninagar (East),  
Ahmedabad- 380026, Gujarat, INDIA.  
Email: [purchase@iitram.ac.in](mailto:purchase@iitram.ac.in)

**Registrar**

## (Schedule of Quantity)

**Name of Item:** Supply, Installation, Testing & Commissioning of the equipment(s) for Fluid Machinery Laboratory

Sr. No.	Item(s) Name	Specifications
1	<b>Pelton Wheel Turbine Test Rig</b>	<ul style="list-style-type: none"> <li>• Sturdy CI casing with transparent window for visualization.</li> <li>• Pelton wheel: 500 mm diameter with about 18 buckets (runner with electroplated buckets.)</li> <li>• Nozzle and spear assembly: brass nozzle with stainless steel spear for smooth flow and efficient operation.</li> <li>• Sump tank capacity: Approx. 200 liters (made of highgrade material)</li> <li>• Flow rate measurement: Orifice meter with Burdon type pressure gauge or better alternative.</li> <li>• Pump: Monoblock type, 4 liter/sec, head 20 meters, motor 5 HP (or better alternative).</li> <li>• Piping with necessary valves and fittings</li> <li>• Digital RPM Indicator</li> <li>• Turbine should be coupled with an arrangement (such as rope brake pully) to measure output power.</li> <li>• Suction and delivery piping and fittings should be provided with pressure gauge and flow control valves.</li> <li>• Detailed technical manual</li> <li>• Whole unit should be fitted on strong and sturdy supporting stand with good color combinations.</li> <li>• Complete setup with necessary safety measures and all accessories.</li> <li>• All components of the test rig should be from reputable manufacturers with ISI/ISO details, wherever possible.</li> </ul>
2	<b>Kaplan Turbine Test Rig</b>	<ul style="list-style-type: none"> <li>• Output power: 1 kW</li> <li>• Max discharge: within 10001500 LPM</li> <li>• Supply head: 58 M</li> <li>• Normal speed: 15002000 RPM</li> <li>• Dynamometer: Rope Brake type (or better alternative)</li> <li>• Water circulation: Centrifugal Pump, Capacity 5 HP, 3 Phase</li> <li>• Discharge measurement: Differential flowmeter with manometer</li> <li>• Sump tank: capacity approx. 200 liters</li> <li>• Pressure measurement: Pressure Gauge</li> <li>• Piping &amp; fittings: Pipes &amp; fittings with flow control valves of suitable size</li> <li>• Runner of gun metal with polished adjustable foil blades, stainless steel guide vanes (or better alternative).</li> <li>• Reservoir with suitable drain valve and necessary fittings.</li> <li>• Suction and delivery piping and fittings should be provided with pressure gauge and flow control valves.</li> <li>• Digital RPM Indicator</li> <li>• Control panel with starter, mains indicator, MCB for overload protection.</li> <li>• Detailed technical manual</li> <li>• Whole unit should be fitted on strong and sturdy supporting stand with good color combinations.</li> <li>• Complete setup with necessary safety measures and all accessories.</li> <li>• All components of the test rig should be from reputable manufacturers with ISI/ISO details, wherever possible.</li> </ul>
3	<b>Francis Turbine Test Rig</b>	<ul style="list-style-type: none"> <li>• Output Power: 1 kW</li> <li>• Discharge: 1000 LPM (approx.)</li> <li>• Supply head: minimum 10 m</li> <li>• Speed: minimum 1000 RPM</li> </ul>

		<ul style="list-style-type: none"> <li>• Runner: mixed flow type specific G.M. runner having curved vanes</li> <li>• Casing: Sturdy CI scroll casing with draft tube.</li> <li>• Wicket gate assembly made of gun metal designed for efficient use through a link mechanism.</li> <li>• Dynamometer: Rope brake type (or better alternative)</li> <li>• Sump tank: Capacity minimum 200 ltrs</li> <li>• Water circulation: Centrifugal pump, capacity 5 HP, 3 phase.</li> <li>• Discharge measurement: Differential flowmeter with manometer</li> <li>• Digital RPM indicator</li> <li>• Detailed technical manual</li> <li>• Whole unit should be fitted on strong and sturdy supporting stand with good color combinations.</li> <li>• Complete setup with necessary safety measures and all accessories.</li> <li>• All components of the test rig should be from reputable manufacturers with ISI/ISO details, wherever possible.</li> </ul>
4	<b>Hydraulic Ram Test Rig</b>	<ul style="list-style-type: none"> <li>• Hydraulic ram will utilize the energy of large quantity of low head water to lift small quantity of this water to a greater head without any external energy.</li> <li>• The apparatus will demonstrate Ram working and can calculate Rankine's efficiency and D'Aubuisson efficiency associated with ram pump.</li> <li>• Sump tank capacity: approx. 150 ltrs,</li> <li>• Supply head: 1 meter with 25 mm supply piping,</li> <li>• Supply pump: 0.5 HP, single phase, make: Crompton Greaves or equivalent</li> <li>• Measuring flask: 1 liter capacity</li> <li>• Delivery pipe: 15 mm piping with 1.5 m delivery head.</li> <li>• All necessary valves and fittings including flow rate and pressure measurement devices.</li> <li>• Detailed Technical Manual</li> <li>• Whole unit should be fitted on strong and sturdy supporting stand with good color combinations.</li> <li>• Complete setup with necessary safety measures and all accessories.</li> <li>• All components of the test rig should be from reputable manufacturers with ISI/ISO details, wherever possible.</li> </ul>
5	<b>Centrifugal Pump Test Rig</b>	<ul style="list-style-type: none"> <li>• Centrifugal pump: 1 HP, head range up to 20 meters, max discharge: 50 LPM or more, make: Crompton Greaves or equivalent</li> <li>• Pump motor controller: variable frequency drive</li> <li>• Sump tank capacity: 75 litres or more, MOC: SS304 with matt buffing</li> <li>• Volumetric tank capacity: 40 litres or more. MOC: SS304 with matt buffing</li> <li>• Burdon type gauges to measure suction and delivery line pressure (or better alternative).</li> <li>• Energy meter to measure input power</li> <li>• Digital RPM Indicator</li> <li>• Detailed Technical Manual</li> <li>• Whole unit should be fitted on strong and sturdy supporting stand with good color combinations.</li> <li>• Complete setup with necessary safety measures and all accessories.</li> <li>• All components of the test rig should be from reputable manufacturers with ISI/ISO details, wherever possible.</li> </ul>



6	<b>Reciprocating Pump Test Rig</b>	<ul style="list-style-type: none"> <li>• Pump: Pressure up to 5 Kg/cm<sup>2</sup> Two Piston Type, make: Crompton Greaves or equivalent</li> <li>• Motor: 1 H.P. 3 Phase Motor with Variable Frequency Drive</li> <li>• Sump tank capacity: 75 litres or more, MOC: SS304 with matt buffing</li> <li>• Volumetric tank capacity: 40 litres or more MOC: SS304 with matt buffing</li> <li>• Burdon Type Gauges to measure Suction and Delivery line pressure.</li> <li>• Energy meter to measure input power</li> <li>• Digital RPM Indicator</li> <li>• Detailed Technical Manual</li> <li>• Whole unit should be fitted on strong and sturdy supporting stand with good color combinations.</li> <li>• Complete setup with necessary safety measures and all accessories.</li> <li>• All components of the test rig should be from reputable manufacturers with ISI/ISO details, wherever possible.</li> </ul>
7	<b>Gear Pump Test Rig</b>	<ul style="list-style-type: none"> <li>• Pump: 15 x 15 mm. size, base mounted, max. discharge 20 LPM (or better alternative), make: Crompton Greaves or equivalent</li> <li>• Pump motor controller: variable frequency drive</li> <li>• Sump tank capacity: 75 litres or more, MOC: SS304 with matt buffing</li> <li>• Volumetric tank capacity: 40 litres or more, MOC: SS304 with Matt Buffing</li> <li>• Burdon type gauges to measure suction and delivery line pressure.</li> <li>• Energy meter to measure input power</li> <li>• Digital RPM Indicator</li> <li>• Detailed Technical Manual</li> <li>• Whole unit should be fitted on strong and sturdy supporting stand with good color combinations.</li> <li>• Complete setup with necessary safety measures and all accessories.</li> <li>• All components of the test rig should be from reputable manufacturers with ISI/ISO details, wherever possible.</li> </ul>
8	<b>Submersible Pump Test Rig</b>	<ul style="list-style-type: none"> <li>• Pump: 10 Stage Borewell Submersible Type Max head approx. 55 meters (or better alternative), make: Crompton Greaves or equivalent</li> <li>• Motor: 1 H.P. single phase motor</li> <li>• Sump tank capacity :100 litres or more, high grade material with robust caging</li> <li>• Flow rate measurement using Rotameter of suitable size</li> <li>• Burdon type gauges to measure line pressure.</li> <li>• Energy meter to measure input power</li> <li>• Detailed Technical Manual</li> <li>• Whole unit should be fitted on strong and sturdy supporting stand with good color combinations.</li> <li>• Complete setup with necessary safety measures and all accessories.</li> <li>• All components of the test rig should be from reputable manufacturers with ISI/ISO details, wherever possible.</li> </ul>
9	<b>Lobe Pump Test Rig</b>	<ul style="list-style-type: none"> <li>• Pump: 15 x 15 mm. size, base mounted, approx. 1000 RPM, make: Crompton Greaves or equivalent</li> <li>• Motor: 1 H.P. motor with VFD</li> <li>• Sump tank capacity: min 75 litres, MOC: SS304 with matt buffing</li> <li>• Volumetric tank capacity: min 40 litres, MOC: SS304 with matt buffing</li> <li>• Burdon type gauges to measure suction and delivery line pressure (or better alternative).</li> <li>• Digital energy meter to measure input power</li> <li>• Digital RPM Indicator</li> <li>• Detailed Technical Manual</li> <li>• Whole unit should be fitted on strong and sturdy supporting stand with good color combinations.</li> <li>• Complete setup with necessary safety measures and all accessories.</li> <li>• All components of the test rig should be from reputable manufacturers with ISI/ISO details, wherever possible.</li> </ul>

10	<b>Hydraulic Press Machine (power operated)</b>	<ul style="list-style-type: none"> <li>• Capacity: min 2 ton</li> <li>• Working pressure: 50 kg/sq.cm or more</li> <li>• Stroke in power operate min 100mm, with appropriate power pack, ram diameter and other accessories and fittings.</li> <li>• Frame type: preferably Hframe</li> <li>• Power pack should contain electric motor, suitable pump, pressure switch, oil filter, level indicator, pressure gauge, air breather, necessary valves for safety and smooth operation.</li> <li>• Suitable control panels should be included for forward and reverse motion of the press.</li> <li>• Detailed Technical Manual</li> <li>• Whole unit should be fitted on strong and sturdy supporting stand with good color combinations.</li> <li>• Complete setup with necessary safety measures and all accessories.</li> <li>• All components of the hydraulic press should be from reputable manufacturers with ISI/ISO details, wherever possible.</li> </ul>
11	<b>Pneumatic Trainer</b>	<ul style="list-style-type: none"> <li>• Pneumatic circuit trainer should have a mobile frame fitted with castor wheels, an inclined working panel, storage cupboards, working elements, actuators, nylon tubings FRL, and other necessary components.</li> <li>• Quick couplings fitted with components and nylon tubing should enable constructing any circuit easily, without using any hand tools.</li> <li>• FRAME: Made from tubular structures, fitted with four castor wheels.</li> <li>• WORKING PANEL: Made from sturdy material, slanted at convenient angle. It should have specially designed brackets to mount working components to build pneumatic circuits.</li> <li>• CUPBOARD: A storage cupboard with locking facility to store all components, when not in use.</li> <li>• FRL: Filter Regulated Lubricator along with pressure gauge.</li> <li>• MANIFOLD: 6 ported manifolds fitted with quick couplings.</li> <li>• NYLON TUBES: Different sizes fitted with quick coupling adapters: a) 500 mm lengths 5 Nos. b) 1000 mm 7 Nos., c) Tee Connection 2 Nos.</li> <li>• Components: double acting cylinder, single acting cylinder, 3/2 hand lever operated valve, 5/2 pilots /pilot valve, flow control valves, 3/2 push button valves, 3/2 roller operated valves, quick exhaust valve, FRL unit.</li> <li>• Detailed Technical Manual</li> <li>• Whole unit should be fitted on strong and sturdy supporting stand with good color combinations.</li> <li>• Complete setup with necessary safety measures and all accessories.</li> <li>• All components of the hydraulic press should be from reputable manufacturers with ISI/ISO details, wherever possible.</li> </ul>
12	<b>Hydraulic Trainer</b>	<ul style="list-style-type: none"> <li>• Mobile Frame: Made from tubular structure &amp; fitted with caster wheels for mobility. A drip tray should be mounted below panel to carry away dripped oil into the reservoir tank. A storage space is provided to house all the flexible hoses.</li> <li>• Power Pack: Oil reservoir tank 40 liters. capacity with level gauge, breather filter, return line filter, drain plug and other required accessories.</li> <li>• Pump: Gear pump, should develop up to 50 bar pressure when connected to 2 HP motor. Motor: 2HP, flange mounting 3 phase, 440 V. AC, 1400 RPM 50 ~ Operating pressure 50 bar (Kg/Cm<sup>2</sup>)</li> <li>• Components: Reciprocating double acting cylinders; Reciprocating single acting cylinders, Rotary vane type motor</li> <li>• Valves: (All the valves should be subplate mounted with front port fitted with quick couplings): Directional control valve – 2/2, 4/3 4/2, 5/3 DCVs, Flow control valve with built in check valve, Bypass valve, Sequencing valve, Pressure reducing valve, Pressure relief valve, Flow control valve, Solenoid Operated D.C. Valve, Limit switch, Pressure gauge 0 140 kg/cm<sup>2</sup></li> <li>• Hoses: Flexible hoses to withstand 100 bar pressure fitted quick couplings.</li> <li>• Detailed Technical Manual</li> <li>• Whole unit should be fitted on strong and sturdy supporting stand with good</li> </ul>

		<p>color combinations.</p> <ul style="list-style-type: none"><li>• Complete setup with necessary safety measures and all accessories.</li><li>• All components of the hydraulic press should be from reputable manufacturers with ISI/ISO details, wherever possible.</li></ul>
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**FORMAT FOR SUBMISSION OF COMPANY DETAILS (DATA SHEET)**

<b>Sr. No.</b>	<b>Particulars</b>	<b>Details to be filled by the Organization</b>
1	Name of the Company	
2	Registered Office Address Telephone Number Fax Number e-Mail	
3	Correspondence Address Telephone Number Fax Number e-Mail:	
4	Details of the authorized person (Name, designation, address) Telephone Number Fax Number e-Mail:	
5	Is the firm - <ul style="list-style-type: none"><li>• Government/ Public Sector Undertaking</li><li>• Proprietary Firm</li><li>• Partnership firm (if yes, give partnership deed)</li><li>• Limited company or Limited Corporation</li><li>• Member of a group of companies (if yes, give name and address and description of other companies)</li><li>• Subsidiary of a large corporation (if yes give the name and address of the parent organization) If the company is subsidiary, state what involvement if any, will the parent company have in the project.</li></ul>	
6	Goods & Service Tax Number (GST)	
7	Permanent Account Number (PAN) of the firm	

**Seal & Signature of Company**

**Date:** \_\_\_\_\_

**Place:** \_\_\_\_\_

**FINANCIAL BID**

(Format for Submission of Financial Details)

(Data Sheet to be submitted ONLY Online at (n)Procure Portal)

Sr. No.	Name of Item(s)	Unit	Qty.	Rate (Without GST)	Total Amount (INR)	GST Slab Rate (%)
A	B	C	D	E	F = (D*E)	G
1.	Pelton Wheel Turbine Test Rig	Nos.	01.00			
2.	Kaplan Turbine Test Rig	Nos.	01.00			
3.	Francis Turbine Test Rig	Nos.	01.00			
4.	Hydraulic Ram Test Rig	Nos.	01.00			
5.	Centrifugal Pump Test Rig	Nos.	01.00			
6.	Reciprocating Pump Test Rig	Nos.	01.00			
7.	Gear Pump Test Rig	Nos.	01.00			
8.	Submersible Pump Test Rig	Nos.	01.00			
9.	Lobe Pump Test Rig	Nos.	01.00			
10.	Hydraulic Press Machine (power operated)	Nos.	01.00			
11.	Pneumatic Trainer	Nos.	01.00			
12.	Hydraulic Trainer	Nos.	01.00			
<b>Total (Without GST)</b>						----
<b>(Rupees in Words:</b>						

This table of Financial Bid is stated for reference purpose only and please do not disclose any price here at the time of submission of this document.

**Declaration:**

I/We hereby declare and affirm that I/We have read and understood the terms and conditions of the contract as stipulated in this tender notice.

**Seal & Signature of Company**

Date: \_\_\_\_\_

Place: \_\_\_\_\_

*(To be printed on firm's letterhead)*

**TENDER ACCEPTANCE LETTER**

**To,**  
**The Registrar**  
**Institute of Infrastructure, Technology, Research And Management**  
Near Khokhra Circle, Maninagar (East),  
Ahmedabad – 380026, Gujarat.

**Subject:**            **Acceptance of Terms & Conditions of the Tender**

**Tender Reference No:**

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**Name of Tender / Work:**            Supply, Installation, Testing & Commissioning of the equipment(s) for Fluid Machinery Laboratory

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Sir(s),

1. I/We have downloaded/obtained the tender document(s) for the above mentioned “Tender/Work” from the web site(s) namely: \_\_\_\_\_
2. I/We hereby certify that I/we have read the entire terms and conditions of the tender documents (including all documents like annexure(s), schedule(s), etc.), which form part of the contract agreement and I/we shall abide hereby by the terms / conditions / clauses contained therein.
3. The corrigendum(s) issued from time to time by your department / organizations too have also been taken into consideration, while submitting this acceptance letter.
4. I/We hereby declare that I/We have carefully studied the conditions of contract, specifications and other tender documents of this work and unconditionally accept the tender conditions of above-mentioned tender document(s) / corrigendum(s) in its totality / entirety.
5. I/We do hereby declare that our Firm has not been blacklisted/ debarred by any Govt. Department/Public sector undertaking/Govt. Autonomous organizations.
6. I/We certify that all information furnished by our Firm is true & correct and in the event that the information is found to be incorrect/untrue or found violated, then your department/ organization shall without giving any notice or reason therefore can summarily reject the bid or terminate the contract, without prejudice to any other rights or remedy including the forfeiture of the full EMD/SD absolutely.

Yours faithfully,

**(Signature of the Bidder, with Official Seal)**

*(To be printed on firm's letter head)*

**UNDERTAKING**

I, \_\_\_\_\_ hereby declare that Firm / Company / Agency / Organization / Partnership firm / Proprietary firm titled as \_\_\_\_\_ has not been blacklisted or banned or debarred at any stage from inception till this date by any of the NITs / IITs / IIITs / Central Universities / IISERs / CSIR Labs Central and State Government body / PSUs / Autonomous Institute or any Other Government Organization. In case of the any fraudulency, the Firm / Company / Agency / Organization / Partnership firm / Proprietary firm is fully aware that the tender / contract will be rejected / cancelled by IITRAM and EMD / Performance Security or any deposited amount shall be forfeited.

In addition to above, IITRAM will not be responsible to pay the bills for any completed / partially completed/supplied work.

**Seal and Signature of Company**

**Date:** \_\_\_\_\_

**Place:** \_\_\_\_\_

*(To be printed on firm's letter head)*

**FORM**

**PARTICULARS FOR RTGS/National Electronic Fund Transfer (NEFT)**

1. Name of the Bidder:
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2. Permanent Account No (PAN):
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**Particulars of Bank Account:**

a) Name of the Bank:
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b) Name of the Branch:
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c) Branch Code:
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d) Telephone No.:
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e) IFSC Code:
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f) Type of Account:
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g) Account No.:
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3. Email id of the Bidder:
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**Seal & Signature of Company**